What is claimed:

1. A transgenic Graminaceous cell comprising a transgene encoding an enzyme of the glycine betaine biosynthetic pathway.

2. The transgenic cell of claim 1 comprising a transgene encoding betaine aldehyde dehydrogenase.

3. The transgenic cell of claim 2, in which the transgene encodes betaine aldehyde dehydrogenase from *Atriplex hortensis*.

4. The transgenic cell of claim 3, in which the plasmid pRTT120 comprises the transgene.

5. The transgenic cell of claim 1, which is a turfgrass.

6. The transgenic cell of claim 5, which is selected from the group consisting of Creeping Bentgrass, Perennial Ryegrass, Kentucky Bluegrass and Bermudagrass.

7. The transgenic cell of claim 1, which is salt tolerant.

8. The transgenic cell of claim 7, which grows significantly faster that equivalent untransformed cells on a 0.8% NaCl medium at the P=0.05 level of significance.

9. A transgenic plant produced from the transgenic cell of claim 1.

10. Seeds produced from the transgenic plant of claim 9.

11. The transgenic plant of claim 9, which is salt-tolerant.

12. The transgenic plant of claim 11, which grows significantly faster than the equivalent untransformed plant under 1.2% NaCl stress at the P=0.05 level of significance.

13. The transgenic plant of claim 11, which is also drought tolerant.

14. A salt-tolerant transgenic Graminaceous plant which expresses a transgene encoding an enzyme of the glycine betaine biosynthetic pathway.

15. The transgenic plant of claim 14 comprising a transgene encoding betaine aldehyde dehydrogenase.

16. The transgenic plant of claim 15, in which the transgene encodes betaine aldehyde dehydrogenase from *Atriplex hortensis*.

17. The transgenic plant of claim 16, in which the plasmid pRTT120 comprises the transgene.

18. The transgenic plant of claim 14, which is a turfgrass.

19. The transgenic plant of claim 18, which is selected from the group consisting of Creeping Bentgrass, Perennial Ryegrass, Kentucky Bluegrass and Bermudagrass.

20. The transgenic plant of claim 14, which grows significantly faster than the equivalent untransformed plant under 1.2% NaCl stress at the P=0.05 level of significance.

21. The transgenic plant of claim 14, which is also drought tolerant.

22. Seeds of the transgenic plant of claim 14.

23. A transgenic Graminaceous plant which, as compared to untransformed equivalent plants, has at least one phenotypic characteristic selected from the group consisting of:

A) a significantly higher level of BAH activity;

B) a significantly higher concentration of glycine betaine on a dry weight basis;

C) a significantly higher growth rate during salt stress;

D) a significantly level of drought tolerance;

E) BAH activity that is at least 1.5 X greater in leaf tissue; and

F) betaine glycine concentration that is at least 2 X greater in leaf tissue on a dry weight basis.

24. The transgenic plant of claim 13, which is a turfgrass.

25. The transgenic plant of claim 14, which is selected from the group consisting of Creeping Bentgrass, Perennial Ryegrass, Kentucky Bluegrass and Bermudagrass.